

WHAT IS CLAIMED IS:
CLAIMS:

sub 037
1. A semiconductor device comprising integrated circuit elements realized in a stack of layers on a substrate and comprising means for preventing pollution of the circuit elements and of the substrate by hydrogen originating from their environment, characterized in that said means are formed by a layer of a material which absorbs hydrogen, referred to as
5 hydrogen getter (10), which forms a pattern which is integrated with the circuit elements and of which an external surface (11) is exposed and in contact with said environment.

10 2. A device as claimed in claim 1, characterized in that the hydrogen getter layer is formed on the surface of the substrate and in that the circuit elements comprise an upper protective layer which has an opening for exposing the upper surface (11) of said hydrogen getter layer (10).

15 3. A device as claimed in claim 1, characterized in that the hydrogen getter layer is realized simultaneously with a layer of a same material from which elements of the integrated circuits are formed, and in that the circuit elements comprise an upper protective layer which has an opening for exposing the upper surface (11) of said hydrogen getter layer (10).

20 4. A device as claimed in claim 1, ~~or as claimed in one of the claims 2 and 3,~~ characterized in that the hydrogen getter layer forms patterns arranged between the integrated circuit elements or patterns arranged along the periphery of the integrated circuits.

a 5. A device as claimed in ~~one of the claims 1 to 4,~~ characterized in that the semiconductor materials belong to the chemical group III-V.

a 25 6. A device as claimed in ~~any one of the claims 1 to 5,~~ characterized in that the material of the hydrogen getter layer comprises palladium (Pd).

a 7. A device as claimed in ~~any one of the claims 1 to 5,~~ characterized in that the material of the hydrogen getter layer comprises titanium (Ti).

a 8. A device as claimed in ~~any one of the claims 1 to 7~~, characterized in that it is enclosed in a housing.

a 5 9. A device as claimed in ~~any one of the claims 1 to 8~~, characterized in that it forms part of a module of a spatial telecommunication system launched in a satellite.

a 10. A device as claimed in ~~any one of the claims 1 to 8~~, characterized in that it forms part of a module of a terrestrial telecommunication system.

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